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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,672	04/16/2001	Duane Wrasman	12288	7188
7590	09/10/2003			
ORUM & ROTH 53 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3606			EXAMINER	
			PREVIL, DANIEL	
		ART UNIT	PAPER NUMBER	18
		2636		
DATE MAILED: 09/10/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/836,672	WRASMAN ET AL.	
	Examiner	Art Unit	
	Daniel Previl	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 June 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

This action is responsive to communication filed on June 22, 2003.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the two RF mixers in series must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 1, 11, the phrase "two RF mixers in series" was not described in the specification. Therefore, it is a new matter.

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Claims 2-10, 12-14 are rejected for the same reason since they depend from rejected claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, are rejected under 35 U.S.C. 103(a) as being unpatentable over Koelle et al. (US 4,739,328) in view of Landt et al. (US 6,078,251) and further in view of Cunningham (US 3,974,452).

Regarding claim 1, Koelle discloses an antenna for receiving and transmitting RF signals (antenna 12 transmits to antenna 16, antenna 12 receives signal from the source 10) (fig. 1; col. 3, lines 11-32); an input/output connection (fig. 2b); an antenna connected to RF source and preamplifier module for receiving and transmitting RF signals (RF signal is connected to antenna 12) (fig. 1; col. 3, lines 6—34) wherein the gain of the amplifier is adjusted in response to the amplitude of the incoming data (the exclusive OR gate 68 compares the amplitude of the signal cycles from the amplifier 48 with the

amplitude of the delayed signal cycles from the shift register 54; OR gate 66 produces a signal with the high amplitude) (fig. 2b; col. 6, lines 25-44).

Koelle fails to disclose a power supply; a digital signal processor module; digital signal processor module controlling RF source and preamplifier module, and decoding RF signals received antenna; digital signal processor operate with more than one of a RFID protocol by changing an operational characteristic of Rf source and preamplifier module; RF source and preamplifier module having a Rf source section comprising at least two Rf mixers in series and a preamplifier section .

However, Landt discloses power supply (CPU 236 inherently included a power supply) (col. 8, lines 22-24); a digital signal processor module (signal processor 208) (col. 7, line 6); digital signal processor module controlling RF source and preamplifier module, and decoding RF signals received by the antenna (a transceiver for transmitting the radio frequency signal to the electronic tag through the antenna and for receiving a returned radio frequency signal from the electronic tag including encoded data for processing the returned radio frequency signal to decode the encoded data from the electronic tag) (col. 2, lines 16-32; col. 21, lines 4-11; col. 7, lines 54-67); digital signal processor operate with more than one of a RFID protocol by changing an operational characteristic of RF source and preamplifier module (data processing of signals in response to an interrogation signal generated by the integrated RFDC and

RFID module, in addition, the output of the RF is provided to the RF down converter strip out the RF signal) (fig. 4; col. 11, lines 26-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Landt in Koelle. Doing so would identify accurately the object for transmission to the antenna. RFID would be capable of reading the tag to obtain efficient information wherein time and money could be saved for user's advantage.

Moreover, Cunningham discloses RF source and preamplifier module having an Rf source section comprising at least two Rf mixers in series and a preamplifier section (first mixer and second mixer are in series) (fig. 1; col. 2, lines 13-30 and 54-57).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Cunningham in Koelle and Landt. Doing so would identify accurately the object for transmission to the antenna. RFID would be capable of reading the tag to obtain efficient information so time and money could be saved for user's advantage.

Regarding claim 2, the above combination discloses all the limitations in claim 1 and Landt further discloses flash memory (flash ROM 154); flash memory loadable with operational data, allowing the device to be reconfigured by a host computer (flash ROM 154 via the radio control program implements the radio

communication to and from the host base station 232) (col. 9, lines 29-55). Same motivation as claim 1.

3. Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koelle et al. Landt in view of Cunningham and further in view of Mon (US 6,354,493).

Regarding claim 3, the above combination discloses all the limitations in claim 1 but fails to specify RFID protocols include Intellitag 500 and ISO/AAR protocol.

However, Mon discloses RFID tag includes Intellitag 500 (col. 3, lines 19-26).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mon in Koelle, Landt and Cunningham. Doing so would determine a proper reading of the RFID tagged articles and allow efficiently data transfer wherein time and money can be saved for users' beneficial.

The above combination discloses the limitations above but fails to specify ISO/AAR protocol. Since Mon disclose Intellitag 500 (col. 3, line 19-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ISO/AAR protocol in combination with Mon's Intellitag 500 to identify accurately the object for transmission to the antenna. Wherein RFID would be capable of reading the tag to obtain efficient information so time and money could be saved for user's advantage.

Regarding claims 4-5, the above combination discloses all the limitations in claim 1 and Landt further discloses the step of varying a Rf signal power output level (col. 9, lines 50-60; col. 11, lines 30-40). Same motivation as claim 3.

Regarding claim 6, the above combination discloses all the limitations in claim 1 and Landt further discloses housing formed from two identical, matching halves (fig. 3). Same motivation as claim 3.

Regarding claim 7, the above combination discloses all the limitations in claim 1 and Landt further discloses the RF source and preamplifier module filter and amplify received RF signals at a filtering and amplification level controlled by the digital signal processor (col. 13, lines 16-47). Same motivation as claim 3.

Regarding claim 8, the above combination discloses all the limitations in claim 1 and Landt further discloses a modulation data string is controlled by logic signals from the data signal processor (a modulation control signals 525 from controller 102 is coupled to Rf amplifier 524) (col. 11, lines 43-47).

Regarding claim 9, the above combination discloses all the limitations in claim 1 and Landt further discloses a plurality of RFID protocols (the RFID reader processes multiple tag protocols) (col. 2, line 15). And Mon further discloses gamma technology (intellitag 500) (col. 3, lines 20-21).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mon in Koelle, Landt and Cunningham. Doing so would determine a proper reading of the RFID

tagged articles in which data can be transferred efficiently wherein time and money can be saved for the users' own interests.

Regarding claim 10, the above combination discloses all the limitations in claim 1 and Landt further discloses more than RFID protocol, first and second RFID protocol utilizes a differently modulated RF signal than second RFID protocol (col. 5, lines 3-11).

4. Claim 11, is rejected under 35 U.S.C. 103(a) as being unpatentable over Koelle et al. (US 4,739,328) in view of Landt (US 6,078,251) and further in view of Cunningham (US 3,974,452).

Regarding claim 11, Koelle discloses the step of adjusting the gain of a preamplifier in response to the amplitude of incoming data (the exclusive OR gate 68 compares the amplitude of the signal cycles from the amplifier 48 with the amplitude of the delayed signal cycles from the shift register 54; OR gate 66 produces a signal with the high amplitude) (fig. 2b; col. 6, lines 25-44).

Koelle discloses all the limitations above but fails to explicitly disclose more than one RFID protocol; controlling the modulation data string; monitoring for error conditions and RF mixers in series to create a modulated signal.

However, Landt discloses RFID reader processes multiple tag protocols (col. 2, line 15); controlling the modulation data string (a modulation control signals 525 from controller 102 is coupled to Rf

amplifier 524) (col. 11, lines 43-47); monitoring for error conditions (data recovery operation) (col. 18, lines 44-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Landt in Koelle. Doing so would identify accurately the object for transmission to the antenna. RFID would be capable of reading the tag to obtain efficient information wherein time and money could be saved for user's advantage.

Moreover, Cunningham discloses Rf mixers in series to create a modulated signal. (mixers 16 and 24 are in series) (col. 2, lines 54-58).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Cunningham in Koelle and Landt. Doing so would identify accurately the object for transmission to the antenna. Wherein RFID would be capable of reading the tag to obtain efficient information so time and money could be saved for user's advantage.

5. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koelle et al. Landt in view of Cunningham and further in view of Mon (US 6,354,493).

Regarding claim 12, the above combination discloses all the limitations in claim 11 and Landt further discloses a plurality of RFID protocols (the RFID reader processes multiple tag protocols) (col. 2, line 15) but fails to specify RFID protocols include Intellitag 500 and ISO/AAR protocol.

However, Mon discloses RFID tag includes Intellitag 500 (col. 3, lines 19-26).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mon in Koelle, Landt and Cunningham. Doing so would determine a proper reading of the RFID tagged articles and allow efficiently data transfer wherein time and money can be saved for users' beneficial.

The above combination discloses the limitations above but fails to specify ISO/AAR protocol. Since Mon disclose Intellitag 500 (col. 3, line 19-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ISO/AAR protocol in combination with Mon's Intellitag 500 to identify accurately the object for transmission to the antenna. Wherein RFID would be capable of reading the tag to obtain efficient information so time and money could be saved for user's advantage.

Regarding claim 13, the above combination discloses all the limitations in claim 1 and Landt further discloses a plurality of RFID protocols (the RFID reader processes multiple tag protocols) (col. 2, line 15) and Mon further discloses gamma technology (intellitag 500) (col. 3, lines 20-21).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mon in Koelle and Landt. Doing so would determine a proper reading of the RFID tagged articles in

which data can be transferred efficiently wherein time and money can be saved for the users' own interests.

Regarding claim 14, the above combination discloses all the limitations in claim 1 and Landt further discloses more than RFID protocol, first and second RFID protocol utilizes a differently modulated RF signal than second RFID protocol (col. 5, lines 3-11).

Response to Arguments

6. Applicant's arguments filed on June 22, 2003 have been fully considered but they are not persuasive.

According to Applicant's argument " Koelle, alone or in combination with Landt, does not teach or suggest a dual mode RFID reader". The examiner respectfully disagrees with the Applicant because Landt discloses transponder is a read/write electronic tag for detecting modulated write signals received from RFID module) (col. 7, lines 54-57).

Contrary to Applicant's argument in regard to two Rf mixers; Cunningham discloses Two Rf mixers 16 and 24 in series (fig. 1; col. 2, lines 15-58).

The rejection is proper.

For at least the above reasons, the rejection of claims 12, 4-11, 13-14 is sustained.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Landt et al. (US 5,030,807) discloses a system for reading and writing data from and into remote tags.

Landt (US 4,816,839) discloses a transponder antenna.

Bjorklund et al. (US 6,336,126) discloses a wearable computer.

Shober et al. (US 5,649,295) discloses a dual mode modulated backscatter system.

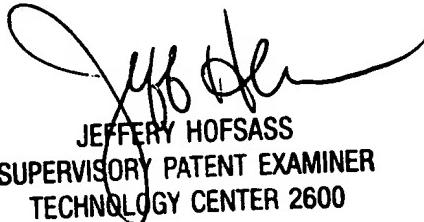
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 703 305 4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-4700.

Daniel Previl
Examiner
Art Unit 2632

DP
August 12, 2003.



JEFFERY HOFSSA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600